LY was calculated. Sensitivity analyses were performed. **RESULTS:** Model results for treatment-experienced patients show that SMV is the dominant treatment compared to TVR+PR and BOC+PR therapies as more total LYs are saved and less costs accrued. ICER of SMV+PR vs PR was € 22,967 per LY. Results were robust in sensitivity analyses. **CONCLUSIONS:** SMV + PR is cost-effective compared to dual PR-therapy and appears the dominant strategy compared to other PI (telaprevir, boceprevir) for CHC treatment-experienced patients in Russia.

PGI25

**COST-EFFECTIVENESS ANALYSIS OF TRIPLE THERAPY WITH PEGINTERFERON, RIBAVIRIN, AND BOCEPREVIR FOR THE TREATMENT OF CHRONIC HEPATITIS C VIRUS GENOTYPE 1 WITH SEVERE FIBROSIS UNDER "REAL-LIFE" CONDITIONS**

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**OBJECTIVES:** Studies based on the data of clinical trials have proved that the triple therapy for hepatitis C is cost effective. This study we assessed the cost-effectiveness of triple therapy in treatment of Chronic Hepatitis C with Severe Fibrosis under "real-life" conditions. **METHODS:** The analysis was conducted from the data included in the prospective, multicentre, Spanish registry that includes patients with HCV-genotype-1 infection, who had severe fibrosis and were treated with triple therapy (peginterferon alfa-2a or 2b, ribavirin, and boceprevir). The cost effectiveness analysis of antiviral treatment includes the costs of antiviral treatment, of concomitant treatments and costs in relation to health care resources (in relation to clinical practice and the adverse events). **RESULTS:** 170 patients were included. 68.2% male, mean age of 53 (29-76) years. 80% had received prior treatment. 36.5% of patients reported at least one SAEs. The overall percentage of patients with SVRw12 was 46.5%. The cost of triple therapy represented a total of 4,916,652.84€, the pharmacological cost (triple therapy+concomitant treatment) involved a total cost of 5,161,168.98€. The consumption of health resources generated an additional cost of 240,000 €, which is about 1,500€/patient. The total cost per patient cured was 70,262€. This cost varies greatly based on different baseline characteristics of the patients, with significant differences in patients with albumin <3.5, 120,597€; prior null response 120,727€ and platelets <90,000,104,464€. **CONCLUSIONS:** The current scenario of the hepatitis C treatment is changing. Triple therapy is more costly for patients with severe fibrosis and predictors of poor response. However, keeping in mind that the timeframe for the release of IFN-free regimens remains uncertain and considered that the actual access to the new DAA in the real world setting could be delayed, boceprevir could remain as an option for patients with intact liver function and a high unmet medical need, regardless of the degree of liver fibrosis, in locations where a delay in the access to the newer therapies is foreseen and hepatic transplant would not be readily available.

PGI26

**THE COST EFFECTIVENESS ANALYSIS OF THE ORAL ANTI-VIRAL TREATMENTS ALTERNATIVES FOR THE CHRONIC HEPATITIS B IN TURKEY**

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**OBJECTIVES:** The aim of this study is to compare the cost effectiveness of oral antiviral treatment strategies in CHB for Turkey using lamuvidine, telbuvidine, entecavir, and tenofovir as medications. **METHODS:** The analysis was conducted using Markov model. Inadequate response or resistance after receiving 12 months of the treatment with entecavir and telbivudine were compared to the results found from switching from entecavir to tenofovir or from switching from telbuvidine to tenofovir. In additional, inadequate response or resistance after receiving 6 months of the treatment for lamivudine was compared to the results found from switching from lamivudine to tenofovir. The model duration was constructed to evaluate a treatment strategy duration of 40 years. Years of Potential Life Lost (YPLL) was used as the health outcome. An incremental cost-effectiveness ratio (ICER) analysis of the results was conducted. **RESULTS:** In a life time period, the lowest YPLL and the cost of treatment were calculated for the NS. Tenofovir treatment with 0.54 years and 37,213.75 TL. Depending on the results, the lowest YPLL and the cost of treatment were served by NS. Tenofovir treatment with 2.06 years and 276,468.45 TL. The highest YPLL and the cost of treatment were calculated for the NS. The ICER analysis found that all treatment strategies were dominated by NS. Tenofovir and S. Entecavir. Only these two treatment strategies were found to be cost-effective. **CONCLUSIONS:** The cost of providing 40 years of treatment for patients with CHB, if reimbursement agencies includes Tenofovir and Entecavir as part of the first line treatment strategy for CHB, it can be expected that this approach would result in a positive contribution to the health budget in Turkey.

PGI27

**COST-EFFECTIVENESS OF EVEROLIMUS PLUS REDUCED TACROLIMUS IN DE NOVO LIVER-RECIPIENTS IN THE ITALIAN SETTING**

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**OBJECTIVES:** Prolonged exposure to CNI-based immunosuppressant therapy (IS) in liver transplant (LTx) recipients is associated with long-term complications. In the global registration trial H2304, patients receiving everolimus + reduced tacrolimus (EVR + reduced TAC) demonstrated non-inferior efficacy and superior renal function at Month 12 that was sustained at 36 months compared to tacrolimus alone (TAC). A peer-reviewed Markov model has been adapted to the Italian setting to explore the cost-effectiveness of EVR + reduced TAC compared to TAC, in *de novo* liver-recipients. **METHODS:** The model estimates long-term outcomes associated with IS following LTx along two independent pathways: 1. liver-related (acute rejection, hepatocellular carcinoma, hepatitis C [HCV] recurrence, graft loss); 2. kidney-related (chronic kidney disease, dialysis, renal transplantation) and death. All patients, stratified by liver diagnosis, entered the model at time of LTx and followed both pathways, allowing for multiple combinations of liver and kidney health states. The lifetime model used an annual cycle length except for the 1st year post LTx (quarterly). Efficacy and safety of IS strategies were assessed through the risk of acute rejection, change in renal function, HCV fibrosis progression and frequency of adverse events. Utilities and costs were assigned to each renal and liver state. Subgroup and sensitivity analyses were performed. **RESULTS:** With a mean life expectancy of 18 years, the model predicts patients treated with EVR + reduced TAC gain on average 1.84 years of life and 1.55 QALYs vs. TAC. The risk of acute rejection was reduced by 20%. The incremental cost of EVR + TAC was €38,884 per life year gained and €46,103 per QALY gained vs. TAC. **CONCLUSIONS:** This model shows a strategy of EVR + reduced TAC post-LTx improves survival and quality of life. Higher treatment costs are offset by slower progression of renal deterioration predicted in the first 10 years and fewer lifetime liver complications.

PGI28

**COST-UTILITY ANALYSIS OF SCREENING STRATEGIES FOR NONALCOHOLIC STEATOHEPATITIS**

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**OBJECTIVES:** Nonalcoholic fatty liver disease (NAFLD) is the most common liver condition in Western countries. To date, no studies have examined the cost-effectiveness of screening for nonalcoholic steatohepatitis (NASH), its advanced form. **METHODS:** We performed a cost-utility analysis of annual non-invasive screening strategies using a third-party payer perspective in a general population and compared it to screening in a high-risk obese or diabetic population. Screening algorithms involved well-studied non-invasive techniques including NAFLD fibrosis score, ultrasound transient elastography (TE), and ultrasound acoustic radiation force impulse (ARFI) imaging for detecting advanced fibrosis (≥ F3); and plasma cytokeratin-18 for NASH detection. Liver biopsy and magnetic resonance elastography (MRE) were compared as confirmation methods. Model uncertainties were tested using sensitivity analyses. Canadian dollar costs were adjusted for inflation and discounted at 5%. Incremental cost-effectiveness ratio (ICER) of $C50,000 per quality-adjusted life year (QALY) or less was considered cost-effective. **RESULTS:** Compared with no screening, screening with NAFLD fibrosis score/TE/CK-18 algorithm with MRE as confirmation for advanced fibrosis had an ICER of $C26,143 per QALY gained. Screening in high-risk obese or diabetic populations was more cost-effective, with an ICER of $C9,051 and $C7,991 per QALY gained respectively. Screening algorithms with liver biopsy confirmation were not found to be cost-effective. Sensitivity analyses revealed that the screening starting age, the annual transition probability from simple steatosis to NASH, and the cost of a TE exam had the most impact on the results. **CONCLUSIONS:** Our model suggests that annual NASH screening in high-risk obese or diabetic populations can be cost-effective.

PGI29

**THE COST-EFFECTIVENESS OF SOFOSBUVIR AND RIBAVIRIN TREATMENT IN HCV-INFECTED PATIENTS LISTED FOR LIVER TRANSPLANTATION**

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**OBJECTIVES:** Sofosbuvir in combination with ribavirin (SOF/RBV) is a novel treatment able to suppress HCV viremia when applied to HCV patients listed for transplant, preventing HCV recurrence. Aim of this study was to assess the cost-effectiveness of this regimen in HCV patients listed for transplant for cirrhosis (HCV-cirrhosis) or for hepatocellular carcinoma (HCV-HCC). **METHODS:** a semi-Markov model was developed. The model simulates the progression of HCV-cirrhosis or HCV-HCC patients from the time of listing until death considering the risk of HCV recurrence post-transplant. The model compared 2 different strategies: 1) SOF/RBV up to a maximum of 24 weeks or until OLT if performed before the 24th week, 2) No antiviral treatment. The model estimated the costs related to the treatment with SOF/RBV, the costs associated to each health state, the life-years (LYSs), the quality-adjusted life-years (QALYs), and the incremental cost-effectiveness ratio (ICER) expressed as € per QALY gained. The analysis was performed from the Italian National Health System perspective with a lifetime time horizon and one-month Markov cycles. Future costs and clinical benefits, expressed as QALYs, were discounted at 3% per year. **RESULTS:** in the base-case analysis the ICER for 24 weeks of SOF/RBVR was €30,518 per QALY gained in HCV-cirrhosis patients and €41,610 in HCV-HCC patients. The reliability of our results was confirmed by the one way sensitivity-analysis and by the cost-effectiveness acceptability curve. Further, SOF/RBV cost-effectiveness was clearly sensitive to the duration of treatment; assuming 12 weeks SOF/RBV treatment duration, the ICER decreased to €19,317 in HCV-Cirrhosis and €29,540 in HCV-HCC. **CONCLUSIONS:** our study shows that treating patients with HCV-cirrhosis or HCV-HCC listed for transplant with SOF/RBV is cost-effective and may become the new standard of care for these patients. However a well-defined prospective study is needed to confirm the value of the parameters assumed in the model and the results.